Master of Engineering in Chemical Engineering (Distance)

Overview:

Chemical Engineering is a broad discipline that employs tools from chemistry, physics, mathematics and biology to carry out molecular transformation of low value raw materials to high value final products in a cost-efficient, safe and environmentally benign fashion. Due to this broad-based training in the application of the basic sciences, Chemical Engineers enjoy careers in diverse industries in chemical and petrochemical processing, biopharmaceutical, materials and electronics manufacturing, energy generation and distribution, environmental remediation, process automation and more recently, in new product design.

What Sets Us Apart:

Established in 1903, Chemical and Biomolecular Engineering is one of the oldest degree programs at Lehigh University and is also one of the oldest in the US. Lehigh Chemical engineers have embraced an entrepreneurial culture for over 100 years, establishing a heritage of leadership and collaboration that still thrives today. Our department has taken the practice of chemical and biomolecular engineering into the twenty-first century, bearing on the most technologically challenging issues of the day, including energy, biotechnology, polymeric materials, “green” chemical processing, catalysis and computational systems engineering.

Our research-active faculty members bring state-of-the-art technology, knowledge and teaching methods to the classroom, creating an intellectually stimulating environment for students to engage in advanced learning through our MS/MEng degree offerings. Our program is rigorous but has a very high completion rate of the Master’s degree requirements within a period of about 3 years. In addition to undergraduate majors in chemical engineering, our Master’s program is also suitable for select students from physics, chemistry, and other engineering majors to transition to Chemical Engineering through a staged course-based learning plan.

Lehigh graduates have said that the Lehigh Masters Degree program has been an important enabler for them to aspire and achieve higher level career positions in technical leadership and management.

Requirements:

The master’s degree in chemical engineering is a 31 credit hour program. It is comprised of 13 credit hours of the four core chemical engineering courses listed below. In addition to the core courses, a student must take an additional 6 credit hours (2 courses) of electives in the chemical engineering field. Cross-listed courses need the approval of the department to use as a Chemical Engineering elective. Please consult the department coordinator for approval. The remaining 12 credit hours (4 courses) can be electives within or outside of the department. These can include various specialization courses in areas such as Polymer Science, Material Science, etc. The program should include the following levels:

- Not less than 31 credit hours of graduate work at 300- or 400-level
- Not less than 18 credit hours of coursework at the 400-level
- Not less than 18 credit hours in the field of Chemical Engineering
- Not less than 15 credit hours of 400-level coursework in the Chemical Engineering field

Students choose their coursework and complete their degree requirements by selection of any set of courses consistent with these requirements. Once accepted, the Master’s degree performance requirements will apply as follows:
• No course with a grade below a “C-” may be included in the degree program.
• More than four grades (regardless of number of credits) below “B-” terminates the student’s eligibility for continued graduate work at Lehigh.

Admission:

The program is open to students with an undergraduate degree in Chemical Engineering from an accredited institution; however, applicants with an appropriate background are encouraged to apply. There are no required examinations such as GRE, GMAT, etc., but international applicants must submit a TOEFL. In addition to the requirements outlined in the admissions application, a personal essay summarizing your career objectives and work experience with respect to your chosen field of study must be submitted along with the application for admission. In order to be considered for admission, an applicant must have an undergraduate cumulative GPA of 3.0 or higher and a GPA of 3.0 or higher for the last two semesters of undergraduate studies.

Applicants that don’t meet the above mentioned requirements may be admitted as associate status, at the department’s discretion. To change status you will need to contact the academic graduate coordinator of the department after admission.

Curriculum:

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<th>Required Core Courses:</th>
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<td>ChE 400 Chemical Engineering Thermodynamics (3)</td>
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<tr>
<td>ChE 410 Chemical Reaction Engineering (3)</td>
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Electives: The elective courses will be selected in conjunction with the student’s advisor from numerous electives offered throughout the program. Please see above requirements.

Information of Interest: A maximum of up to nine credits taken at the graduate level elsewhere may be transferred from an accredited graduate college or graduate university to a Lehigh University Engineering Master’s Program. All courses must be submitted to the department along with a course description (syllabus), a letter from the university starting that the credits are actual graduate level courses, and not used toward a previous degree, and also an official transcript if not already provided.

Contact:

Academic Advisor
Professor Cesar Silebi
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Program Contact
Barbara Kessler
Graduate Coordinator
Phone: (610) 758-4261
E-mail: bak0@lehigh.edu

Department Website:

http://www.lehigh.edu/~incheme/
Additional Information:

MBA&E

The Lehigh MBA is committed to developing leaders in business and in industry: the MBA&E unites two premier programs in one powerful joint degree by offering a solid foundation in both business and engineering. Graduates of the MBA & E program will be prepared to assume leadership positions in industrial planning, venture capital, and engineering management; and as senior managers in roles requiring both technical and business acumen.

The 45 credit hour program is taught in an interactive manner by faculty who are leaders in their fields with a wealth of practical experience; it also combines core business courses and a core of engineering courses:

- MBA Core Courses, M BA (401-406) – 18 credit hours
- Engineering Core Courses – 13 credit hours
- Business Electives – 5 credit hours
- Engineering Electives – 6 credit hours
- Electives – 3 credit hours
- Integrative Project – 1 credit hour

Prerequisites (not required for admission) include:

- Basic Statistics for Business & Economics (ECO 401)
- Financial Reporting for Managers and Investors (GBUS 401)
- Principles of Economics (ECO 001)

The program is designed for students with an undergraduate degree in engineering. Applicants are required to have two years of professional work experience and must be accepted by both the College of Business and Economics and P.C. Rossin college of Engineering and Applied Sciences. Applicants can, however, take engineering courses while they are fulfilling the work requirement.

The MBA&E offers engineering concentrations in the following: chemical engineering, manufacturing system engineering, and mechanical engineering. Upon graduation, a student will receive a MBA degree with a concentration in the engineering discipline.

For more information on the MBA&E:

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